



## Exempt Action Final Regulation Agency Background Document

<b>Agency name</b>	State Water Control Board
<b>Virginia Administrative Code (VAC) citation</b>	9 VAC 25-120
<b>Regulation title</b>	General Virginia Pollutant Discharge Elimination System (VPDES) Permit For Discharges From Petroleum Contaminated Sites And Hydrostatic Tests
<b>Action title</b>	Amend Existing Regulation
<b>Final agency action date</b>	December 4, 2007
<b>Document preparation date</b>	December 13, 2007

When a regulatory action is exempt from executive branch review pursuant to § 2.2-4002 or § 2.2-4006 of the Virginia Administrative Process Act (APA), the agency is encouraged to provide information to the public on the Regulatory Town Hall using this form.

Note: While posting this form on the Town Hall is optional, the agency must comply with requirements of the Virginia Register Act, the *Virginia Register Form, Style, and Procedure Manual*, and Executive Orders 36 (06) and 58 (99).

### Summary

*Please provide a brief summary of all regulatory changes, including the rationale behind such changes. Alert the reader to all substantive matters or changes. If applicable, generally describe the existing regulation.*

This regulation will reissue the existing VPDES general permit for petroleum contaminated sites and hydrostatic tests which expires on February 25, 2008. The general permit will establish limitations and monitoring requirements for point source discharges of wastewater from sites contaminated by petroleum products, chlorinated hydrocarbon solvents, and the hydrostatic testing of petroleum and natural gas storage tanks and pipelines. Changes have been made to the regulation since publication as proposed. The majority of the changes can be found in the various effluent limitations and monitoring requirements tables (Section 80 A 1 – A 8).

### Substance

The significant changes to the regulation are as follows:

1. Changed the title of the regulation to "General Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation For Discharges From Petroleum Contaminated Sites, Groundwater Remediation and Hydrostatic Tests" to more clearly indicate the scope of permit coverage.

2. Added "wastewaters from sites contaminated by chlorinated hydrocarbon solvents" to the list of discharges covered by this permit.

Chlorinated hydrocarbon solvents are common ground water contaminants. At the present time, persons wishing to clean up sites contaminated with these constituents must recover them and take them to an offsite treatment facility, or receive coverage under an individual VPDES permit. The cost of hauling wastewater to an offsite facility and the costs and time involved to apply for and receive an individual VPDES permit are barriers to cleanup, reuse, and economic redevelopment of brownfields. Combining petroleum and solvent discharges within the same general permit is not a new concept. Several other states have "groundwater remediation general permits" that cover discharges from both petroleum and solvent cleanups. The treatment systems used to remove chlorinated hydrocarbon solvents from wastewater are the same as or very similar to those used to remove petroleum (especially gasoline) constituents from wastewater. The effluent limits derived for this permit are based on the most conservative values identified (usually Public Water Supply standards) and will effectively protect both human health and the aquatic environment. By including chlorinated solvents in this general permit, operators will be encouraged to obtain permit coverage for their discharges, and the State will have increased control over these discharges.

3. Expanded the scope of the regulation to allow discharges to waters listed as public water supplies. However, discharges within five miles upstream of a public water supply intake are not authorized by this permit.

Discharges of petroleum contaminated wastewater to surface waters listed as a source for public water supplies are not allowed under the present general permit regulation. The primary concern of allowing petroleum contaminated wastewater discharges to waters listed as sources for public water supplies is the perception that allowing this type of discharge is not sufficiently protective of human health. However, the Water Quality Standards for Public Water Supplies generally are more restrictive than aquatic toxicity-based values. The permit effluent limits developed for discharges to waters listed as sources for public water supplies are based upon either the Water Quality Standard for Public Water Supplies or an aquatic toxicity-based value, whichever is more restrictive.

The permit requires a higher monitoring frequency for discharges into surface waters listed as sources for public water supplies than the monitoring frequency required for discharges to non-public water supplies. This increased monitoring frequency will allow the permittee to identify treatment problems more quickly and take steps to correct their wastewater treatment system so that effluent limits can be maintained.

4. Added several constituents to the list of parameters to be monitored during discharge operations. These changes are based upon the increased use of ethanol and better understanding of lead scavenger compounds used in leaded gasoline.

Ethanol - Both ethanol and MTBE are additives in "reformulated" automotive gasolines (RFG). The Federal Energy Policy Act of 2005 altered the RFG program including the removal of the oxygenate mandate for RFG and set forth a national renewable fuel standard (RFS). Removal of the RFG oxygenate standard and implementation of the new RFS encouraged increased ethanol usage and discouraged MTBE usage. In the Spring of 2006, many RFG marketers in Virginia began being supplied with gasoline containing up to 10% ethanol (E10) in order to replace the MTBE. Ethanol biodegrades rapidly and is a short-lived compound in surface waters and subsurface aquifers. Human health risks from exposure to ethanol appear to be minimal, especially when compared with the risks posed by other gasoline constituents. Ethanol concentrations in discharges of petroleum products containing greater than 10% ethanol may pose risks to aquatic organisms. An effluent limit for ethanol has been added, but monitoring for ethanol is only required for discharges of water contaminated by gasoline containing greater than 10% ethanol.

Ethylene Dibromide (EDB) - Ethylene dibromide (a.k.a. 1,2 dibromoethane, CAS Number: 106-93-4) is a compound added to leaded gasoline to remove lead from the combustion chamber and prevent lead oxide and lead sulfide deposits from forming within an internal combustion engine. Lead scavengers such as EDB are persistent in groundwater and, in combination with the BTEX constituents, can be good indicators of a leaded gasoline release. EDB can persist at low concentrations within ground water and is very toxic to humans. Based upon the toxicity and persistence of this constituent, an effluent limit for EDB has been added for discharges of water contaminated by leaded gasoline.

1,2-Dichloroethane (1,2 DCA) - 1,2-Dichloroethane (1,2 DCA, CAS Number: 107-06-20) is another compound commonly added to leaded gasoline as a lead scavenger. Like EDB, 1,2 DCA can persist a low concentrations within ground water and is quite toxic to humans. Based upon the toxicity and persistence of this constituent, an effluent limit for 1,2 DCA has been added for discharges of water contaminated by leaded gasoline.

5. Removed the monitoring requirement for volatile organics (VOCs), semi-volatile organics (SVOCs), and dissolved metals for discharges of water contaminated by used oil. Modified the registration statement to require the applicant to submit a characterization or description of the wastewater, or nature of the contamination, including analytical data.

Used oil may contain many types of impurities or be contaminated by solvents or other chemicals. The original purpose for evaluating VOCs, SVOCs, and dissolved metals under this general permit was to determine if the wastewater at a site was a hazardous waste. Based on an evaluation of this monitoring requirement, it is believed that this data is not needed as part of an ongoing monitoring regime. An analysis of the wastewater for these constituents must be made prior to any discharge to determine if coverage under this general permit is appropriate. The Registration Statement has been modified to require the applicant to submit these analyses as part of the permit registration process so that staff may determine if the discharge is eligible to receive coverage under this general permit.

6. Modified the existing effluent limits for total recoverable lead, xylenes, and naphthalene.

Aquatic toxicity data available through EPA are constantly updated as new studies are performed and existing data are further reviewed and evaluated. Effluent limits for xylenes and naphthalene in the current permit have been amended to reflect aquatic toxicology data that were not available during the last reissuance of this general permit regulation. The effluent limit

for total recoverable lead has been modified to reflect the revised Water Quality Standard for lead. The new limit is: Total recoverable lead =  $e^{(1.273(\ln \text{hardness}) - 3.259)}$ .

7. Added effluent limitations and monitoring requirements for discharges of water contaminated by chlorinated hydrocarbon solvents (see #2 above).

**Statement of final agency action**

*Please provide a statement of the final action taken by the agency including (1) the date the action was taken, (2) the name of the agency taking the action, and (3) the title of the regulation.*

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On December 4, 2007, the State Water Control Board adopted the amendment to the General Virginia Pollutant Discharge Elimination System (VPDES) Permit For Discharges From Petroleum Contaminated Sites And Hydrostatic Tests. The Board also asserted that they will receive, consider and respond to petitions by any person at any time with respect to reconsideration or revision of the regulation.

**Family impact**

*Assess the impact of this regulatory action on the institution of the family and family stability, including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.*

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It is not anticipated that this regulation will have a direct impact on the institution of the family or family stability.